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=> d his

     (FILE 'HOME' ENTERED AT 16:05:50 ON 29 MAY 2010)

     FILE 'REGISTRY' ENTERED AT 16:06:50 ON 29 MAY 2010
L1             STRUCTURE UPLOADED
L2               4 S L1
L3              91 S L1 FULL

=> d que l3 stat
L1              STR
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Structure attributes must be viewed using STN Express query preparation.
L3             91 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED     143 ITERATIONS                          91 ANSWERS
SEARCH TIME: 00.00.01


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L4            90 L3 AND CAPLUS/LC

=> s l3 not l4
L5             1 L3 NOT L4

=> d ide can
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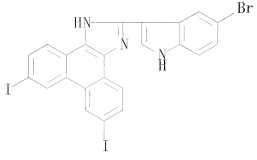
L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2010 ACS on STN
RN 416872-13-4 REGISTRY
ED Entered STN: 16 May 2002
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-bromo-1H-indol-3-yl)-6,9-diiodo- (CA INDEX NAME)
MF C23 H12 Br I2 N3
SR Chemical Library
Supplier: ChemBridge Corporation
LC STN Files: CHEMCATS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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FILE 'CAPLUS' ENTERED AT 16:08:40 ON 29 MAY 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)
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FILE COVERS 1907 - 29 May 2010  VOL 152 ISS 23
FILE LAST UPDATED: 28 May 2010  (20100528/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Apr 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Apr 2010

CAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2010.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.
'.FIONA' IS DEFAULT FORMAT FOR 'CAPLUS' FILE

=> s l3
L6            5 L3

=> d l-5 ibib iabs hitstr
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L6 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2006:1253138 CAPLUS
DOCUMENT NUMBER: 146:27831
TITLE: 2-Indolylimidazo[4,5-d]phenanthroquinoline derivatives and their preparation, pharmaceutical compositions and use in the treatment of cancer
INVENTOR(S): Huesca, Mario; Young, Aiping H.; Lee, Yoon; Khine, Aye Aye; Wright, Jim A.; Lock, Lisa
PATENT ASSIGNEE(S): Lorus Therapeutics Inc., Can.
SOURCE: PCT Int. Appl., 237 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006126177	A2	20061130	WO 2006-IB51675	20060525
WO 2006126177	A3	20070329		
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2006250809	A1	20061130	AU 2006-250809	20060525
CA 2611032	A1	20061130	CA 2006-2611032	20060525
EP 1915374	A2	20080430	EP 2006-756007	20060525
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2008542259	T	20081127	JP 2008-513005	20060525
CN 101248072	A	20080820	CN 2006-80023377	20071227

PRIORITY APPLN. INFO.:
US 2005-684162P P 20050525
US 2005-710551P P 20050822
US 2006-787526P P 20060331
WO 2006-IB51675 W 20060525

OTHER SOURCE(S): CASREACT 146:27831; MARPAT 146:27831
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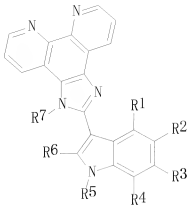

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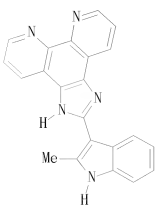
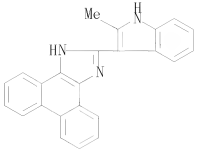


II

ABSTRACT:
2-Indolylimidazo[4,5-d]phenanthroline compds. of formula I that are capable of intracellular chelation of transition metals and of exerting antiproliferative effects in cancer cells, that are cytostatic and/or cytotoxic, are provided. Compds. of formula I can also induce apoptosis in cancer cells and are thus capable of exerting a cytotoxic effect on cancer cells. The compds. of formula I are also capable of selectively inhibiting the proliferation of one or more of prostate cancer cells, colon cancer cells, non-small lung cancer cells and leukemia cells. The compds. of formula I are also capable of increasing the expression of the zinc-regulated tumor suppressor, KLF4 and thus are useful in inhibiting the proliferation of cancer cells in which KLF4 functions as a tumor-suppressor, including, but not limited to, bladder cancer, cancers of the gastrointestinal tract and various leukemias. Compds. of formula I wherein R1-R4, R6, and R6 are independently H, halo, OH, SH, (un)substituted lower alkyl, (un)substituted lower alkenyl, (un)substituted lower alkynyl, alkoxy, alkylthio, acyl aryloxy, amino, amido, etc.; R5 is H, (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, (un)substituted (hetero)aryl, acyl, etc.; and their salts are claimed. Example compound II was prepared by cyclization of phenanthroquinoline with 2-methylindole-3-carboxylic acid. All the invention compds. were evaluated for their antiproliferative activity. From the assay, it was determined that compound II exhibited an IC50 value of 0.6 μg/mL.

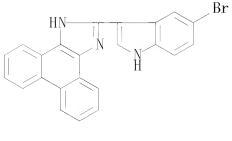
IT 662151-09-9P
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of indolylimidazophenanthroquinoline derivs. and their use in the treatment of cancer)
RN 662151-09-9 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(2-methyl-1H-indol-3-yl)- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2006:497098 CAPLUS
DOCUMENT NUMBER: 145:443625
TITLE: Liposome formulation of a novel hydrophobic aryl-imidazole compound for anti-cancer therapy
AUTHOR(S): Liu, Jubo; Lee, Helen; Huesca, Mario; Young, Aiping; Allen, Christine
CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of Toronto, Toronto, ON, M5S 2S2, Can.
SOURCE: Cancer Chemotherapy and Pharmacology (2006), 58(3), 306-318
CODEN: CCPHDZ; ISSN: 0344-5704
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A cholesterol-free liposome formulation formed from mixts. of egg phosphatidylcholine (ePC) and poly (ethylene glycol) conjugated distearoylphosphatidylethanolamine (DSPE-PEG 2000) was optimized and evaluated for delivery of a novel anti-cancer agent ML220 (2-(5-bromo-1H-indol-3-yl)-1H-phenanthro [9,10-d] imidazole). ML220 is highly lipophilic with a water solubility of 0.14 μg/mL and calculated log P of 5.69. The ML220-loaded liposomes had a unimodal size-distribution and a mean diameter of 89 nm. The drug to lipid ratio in the formulation was 1:3.5 (mol:mol) and the drug loading efficiency was 83% providing a more than 50,000-fold increase in the water solubility of ML220. The formulation was demonstrated to be stable in vitro at 37° for over 2 wk with a delayed drug release profile. Evaluation of the subacute toxicity of the liposome formulated drug in C3H mice revealed no overt signs of toxicity. Also, a biexponential drug plasma concentration pattern was found upon evaluation of the pharmacokinetics in Balb/C mice. The in vivo evaluation of the anti-cancer activity in a human colon HT29 carcinoma model revealed a significant delay in tumor growth. Overall, the ePC/DSPE-PEG liposomes were demonstrated to be a suitable delivery system for ML220. These studies also highlight the potential of cholesterol-free liposomes as a formulation strategy for highly lipophilic drugs.

IT 662151-10-2
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cholesterol-free liposome formulation of egg phosphatidylcholine and DSPE-PEG 2000 were demonstrated to be suitable delivery system for ML220 which showed anti-cancer activity against human colon adenocarcinoma cells bearing mouse)
RN 662151-10-2 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-bromo-1H-indol-3-yl)- (CA INDEX NAME)



OS.CITING REF COUNT:	6	THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)
REFERENCE COUNT:	34	THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:451366 CAPLUS
DOCUMENT NUMBER: 143:7711
TITLE: Preparation of 2,4,5-trisubstituted imidazoles and their use as anticancer agents
INVENTOR(S): Huesca, Mario; Al-Qawasmeh, Raed; Young, Aiping H.; Lee, Yoon
PATENT ASSIGNEE(S): Lorus Therapeutics Inc., Can.
SOURCE: PCT Int. Appl., 184 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005047266	A1	20050526	WO 2004-IB52433	20041115
WO 2005047266	A9	20080417		
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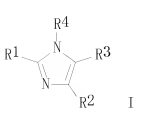
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AP, EA, EP, OA				
AU 2004289539	A1	20050526	AU 2004-289539	20041115
CA 2545942	A1	20050526	CA 2004-2545942	20041115
EP 1692113	A1	20060823	EP 2004-799154	20041115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
JP 2007511504	T	20070510	JP 2006-539065	20041115
US 20070123553	A1	20070531	US 2007-579149	20070119
US 20080262015	A9	20081023		

PRIORITY APPLN. INFO.:		
	US 2003-520279P	P 20031114
	US 2004-599509P	P 20040806
	WO 2004-IB52433	W 20041115

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 143:7711
GRAPHIC IMAGE:



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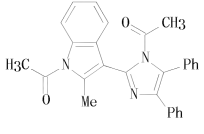

II

ABSTRACT:
Title compds. I [R1 = aryl, heterocycle, etc.; R2-3 = aryl, heteroaryl, etc.; R4 = H, halo, OH, SH, alkyl, etc.] are prepared For instance, 2-methyl-3-formylindole, benzil and NH4OAc is reacted to give the corresponding 4,5-diphenyl-2-(2-methylindol-3-yl)imidazole. The bis(N-acetyl)derivative (II) showed minimal inhibition of proliferation of human colon carcinoma (HT-29) cells whereas selected examples showed significantly greater inhibition. I are useful alone or in combination with other agents for the treatment of cancer.

IT 296793-77-6P 330449-59-7P 662151-09-9P
662151-10-2P 662151-11-3P 662151-16-8P
852107-93-8P 852107-94-9P 852108-10-2P
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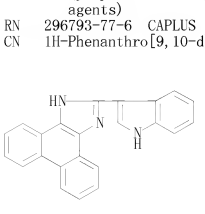
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 2,4,5-trisubstituted imidazoles and use as anticancer agents)

RN 296793-77-6 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(1H-indol-3-yl)- (CA INDEX NAME)



RN 330449-59-7 CAPLUS

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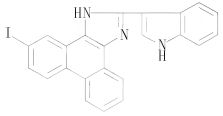

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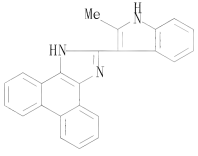

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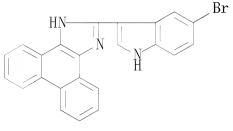

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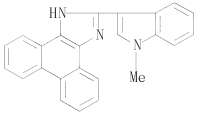

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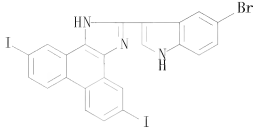

RN 852107-93-8 CAPLUS
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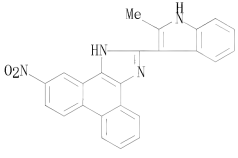

RN 852107-94-9 CAPLUS
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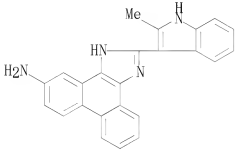

RN 852108-10-2 CAPLUS
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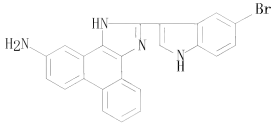

RN 852109-38-7 CAPLUS
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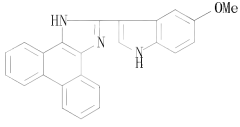

RN 852109-39-8 CAPLUS
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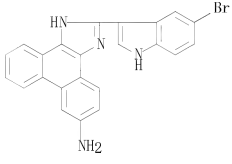
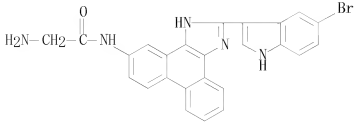
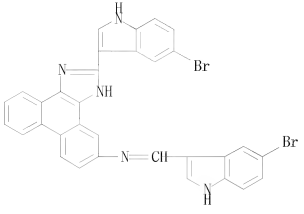


RN 852109-45-6 CAPLUS
CN Acetamide, 2-amino-N-[2-(5-bromo-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]- (CA INDEX NAME)

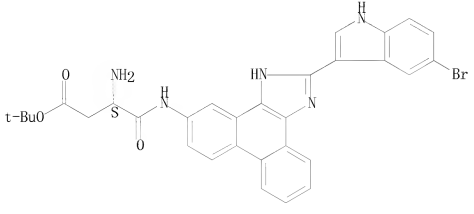


RN 852109-52-5 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-10-amine, 2-(5-bromo-1H-indol-3-yl)-N-[(5-bromo-1H-indol-3-yl)methylene]- (CA INDEX NAME)

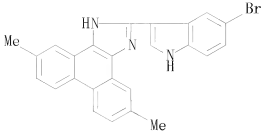


RN 852109-53-6 CAPLUS
CN Butanoic acid, 3-amino-4-[[2-(5-bromo-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]amino]-4-oxo-, 1,1-dimethylethyl ester, (3S)- (CA INDEX NAME)

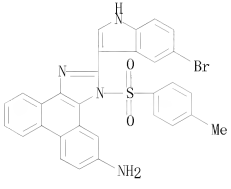
Absolute stereochemistry.



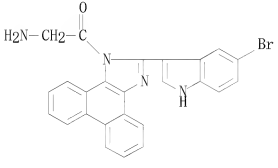
RN 852109-54-7 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-bromo-1H-indol-3-yl)-5,10-dimethyl- (CA INDEX NAME)



RN 852147-15-0 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-10-amine,
2-(5-bromo-1H-indol-3-yl)-1-[(4-methylphenyl)sulfonyl]- (CA INDEX NAME)



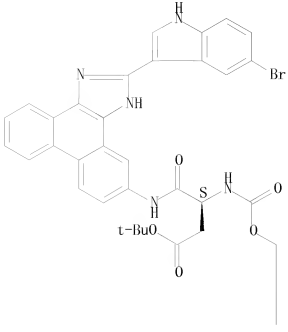
RN 852147-16-1 CAPLUS
CN Ethanone, 2-amino-1-[2-(5-bromo-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-1-yl]- (CA INDEX NAME)



RN 852147-19-4 CAPLUS
CN Butanoic acid, 4-[[2-(5-bromo-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]amino]-3-[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]-4-oxo-, 1,1-dimethylethyl ester, (3S)- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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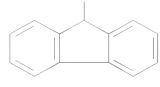
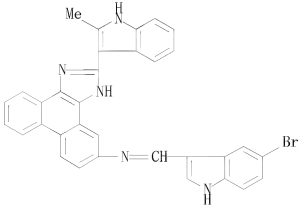
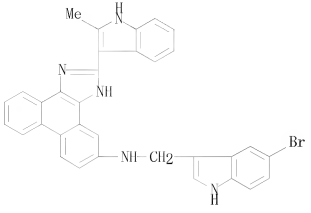


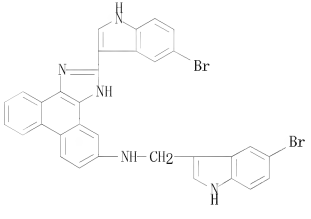
RN 852147-23-0 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-10-amine, N-[(5-bromo-1H-indol-3-yl)methylene]-2-(2-methyl-1H-indol-3-yl)- (CA INDEX NAME)



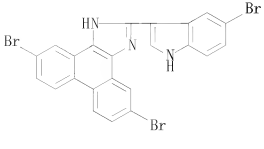
RN 852147-24-1 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-10-amine, N-[(5-bromo-1H-indol-3-yl)methyl]-2-(2-methyl-1H-indol-3-yl)- (CA INDEX NAME)



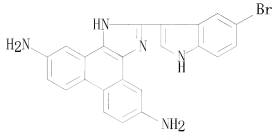
RN 852147-25-2 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-10-amine, 2-(5-bromo-1H-indol-3-yl)-N-[(5-bromo-1H-indol-3-yl)methyl]- (CA INDEX NAME)



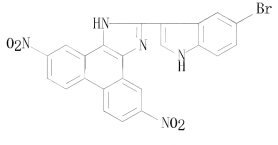
RN 852147-27-4 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 5,10-dibromo-2-(5-bromo-1H-indol-3-yl)- (CA INDEX NAME)



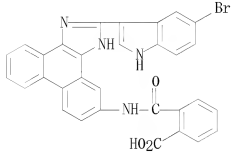
RN 852147-28-5 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole-5,10-diamine, 2-(5-bromo-1H-indol-3-yl)-
(CA INDEX NAME)



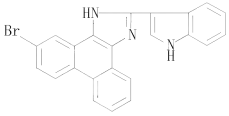
RN 852147-30-9 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-bromo-1H-indol-3-yl)-5,10-dinitro-
(CA INDEX NAME)



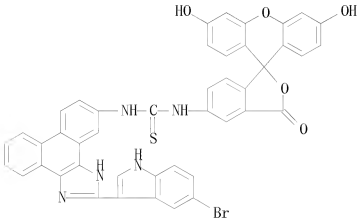
RN 852147-31-0 CAPLUS
CN Benzoic acid, 2-[[[2-(5-bromo-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-
10-yl]amino]carbonyl]- (CA INDEX NAME)



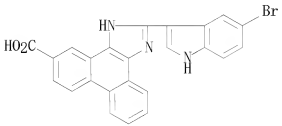
RN 852147-33-2 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 10-bromo-2-(1H-indol-3-yl)- (CA INDEX
NAME)



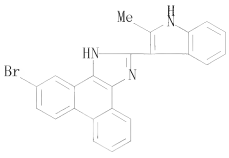
RN 852147-34-3 CAPLUS
CN Thiourea, N-[2-(5-bromo-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]-N'-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)- (CA INDEX NAME)



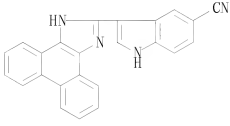
RN 852147-35-4 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole-10-carboxylic acid, 2-(5-bromo-1H-indol-3-yl)- (CA INDEX NAME)



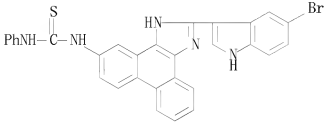
RN 852147-36-5 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 10-bromo-2-(2-methyl-1H-indol-3-yl)- (CA INDEX NAME)



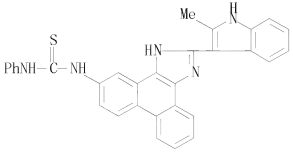
RN 852147-37-6 CAPLUS
CN 1H-Indole-5-carbonitrile, 3-(1H-phenanthro[9,10-d]imidazol-2-yl)- (CA INDEX NAME)



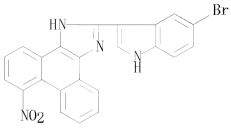
RN 852147-38-7 CAPLUS
CN Thiourea, N-[2-(5-bromo-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]-N'-phenyl- (CA INDEX NAME)



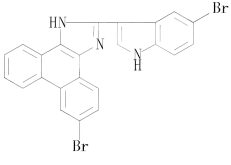
RN 852147-39-8 CAPLUS
CN Thiourea, N-[2-(2-methyl-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]-N'-phenyl- (CA INDEX NAME)



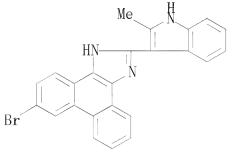
RN 852147-40-1 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-bromo-1H-indol-3-yl)-8-nitro- (CA INDEX NAME)



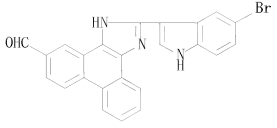
RN 852147-41-2 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 9-bromo-2-(5-bromo-1H-indol-3-yl)- (CA INDEX NAME)



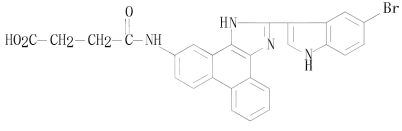
RN 852147-42-3 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 9-bromo-2-(2-methyl-1H-indol-3-yl)- (CA INDEX NAME)



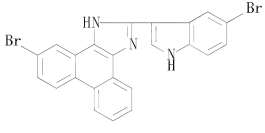
RN 852147-43-4 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole-10-carboxaldehyde, 2-(5-bromo-1H-indol-3-yl)- (CA INDEX NAME)



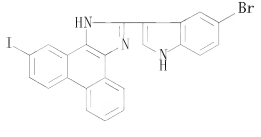
RN 852147-46-7 CAPLUS
CN Butanoic acid, 4-[[2-(5-bromo-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]amino]-4-oxo- (CA INDEX NAME)



RN 852147-47-8 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 10-bromo-2-(5-bromo-1H-indol-3-yl)- (CA INDEX NAME)

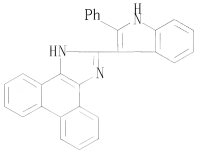


RN 852147-49-0 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-bromo-1H-indol-3-yl)-10-iodo- (CA INDEX NAME)

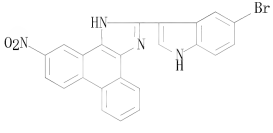


RN 852147-50-3 CAPLUS

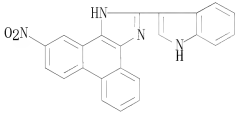
CN 1H-Phenanthro[9,10-d]imidazole, 2-(2-phenyl-1H-indol-3-yl)- (CA INDEX NAME)



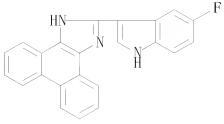
RN 852147-51-4 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-bromo-1H-indol-3-yl)-10-nitro- (CA INDEX NAME)



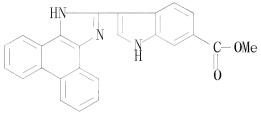
RN 852147-56-9 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(1H-indol-3-yl)-10-nitro- (CA INDEX NAME)



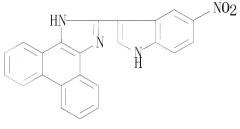
RN 852147-57-0 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-fluoro-1H-indol-3-yl)- (CA INDEX NAME)



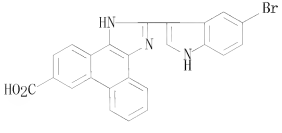
RN 852147-58-1 CAPLUS
CN 1H-Indole-6-carboxylic acid, 3-(1H-phenanthro[9,10-d]imidazol-2-yl)-, methyl ester (CA INDEX NAME)



RN 852147-61-6 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-nitro-1H-indol-3-yl)- (CA INDEX NAME)

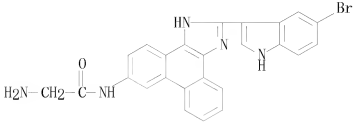


RN 852147-64-9 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole-9-carboxylic acid, 2-(5-bromo-1H-indol-3-yl)- (CA INDEX NAME)

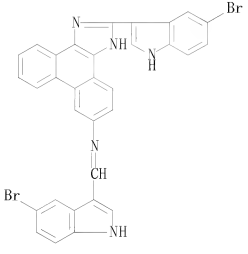


RN 852147-65-0 CAPLUS
CN Acetamide, 2-amino-N-[2-(5-bromo-1H-indol-3-yl)-1H-phenanthro[9,10-

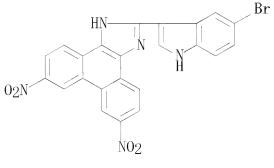
d]imidazol-9-yl]- (CA INDEX NAME)



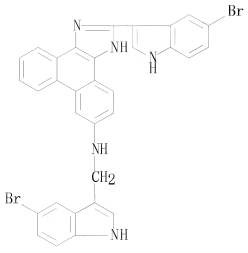
RN 852147-66-1 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-9-amine, 2-(5-bromo-1H-indol-3-yl)-N-[(5-bromo-1H-indol-3-yl)methylene]- (CA INDEX NAME)



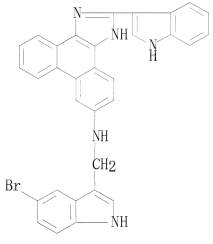
RN 852147-67-2 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-bromo-1H-indol-3-yl)-6,9-dinitro- (CA INDEX NAME)



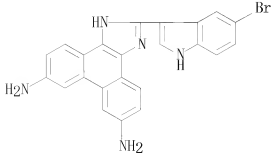
RN 852147-68-3 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-9-amine, 2-(5-bromo-1H-indol-3-yl)-N-[(5-bromo-1H-indol-3-yl)methyl]- (CA INDEX NAME)



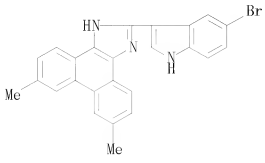
RN 852147-69-4 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-9-amine,
N-[(5-bromo-1H-indol-3-yl)methyl]-2-(1H-indol-3-yl)- (CA INDEX NAME)



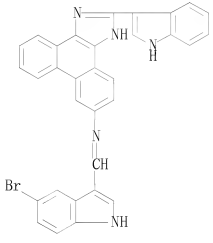
RN 852147-70-7 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole-6,9-diamine, 2-(5-bromo-1H-indol-3-yl)-
(CA INDEX NAME)



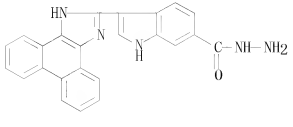
RN 852147-71-8 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-bromo-1H-indol-3-yl)-6,9-dimethyl- (CA INDEX NAME)



RN 852147-72-9 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-9-amine, N-[(5-bromo-1H-indol-3-yl)methylene]-2-(1H-indol-3-yl)- (CA INDEX NAME)



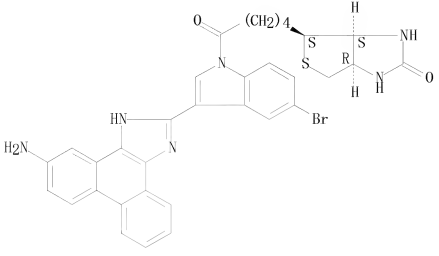
RN 852147-78-5 CAPLUS
CN 1H-Indole-6-carboxylic acid, 3-(1H-phenanthro[9,10-d]imidazol-2-yl)-, hydrazide (CA INDEX NAME)



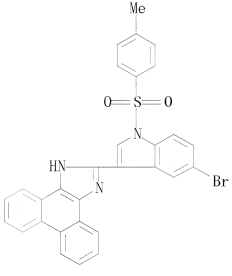
RN 852147-79-6 CAPLUS
CN 1H-Thieno[3,4-d]imidazol-2(3H)-one, 4-[5-[3-(10-amino-1H-phenanthro[9,10-d]imidazol-2-yl)-5-bromo-1H-indol-1-

yl]-5-oxopentyl]tetrahydro-, (3aS,4S,6aR)- (CA INDEX NAME)

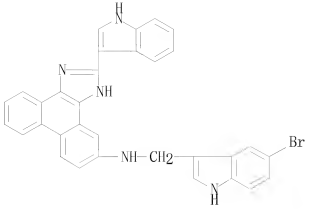
Absolute stereochemistry.



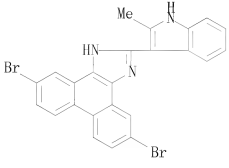
RN 852147-80-9 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-[5-bromo-1-[(4-methylphenyl)sulfonyl]-1H-indol-3-yl]- (CA INDEX NAME)



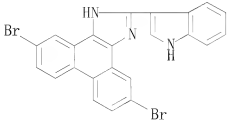
RN 852147-81-0 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-10-amine, N-[(5-bromo-1H-indol-3-yl)methyl]-2-(1H-indol-3-yl)- (CA INDEX NAME)



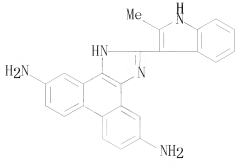
RN 852147-82-1 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 5,10-dibromo-2-(2-methyl-1H-indol-3-yl)- (CA INDEX NAME)



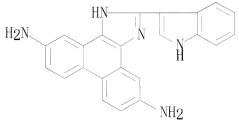
RN 852147-83-2 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 5,10-dibromo-2-(1H-indol-3-yl)- (CA INDEX NAME)



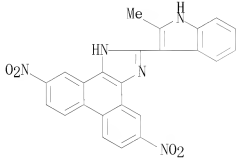
RN 852147-84-3 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole-5,10-diamine, 2-(2-methyl-1H-indol-3-yl)- (CA INDEX NAME)



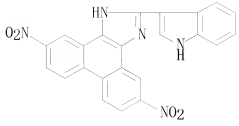
RN 852147-85-4 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole-5,10-diamine, 2-(1H-indol-3-yl)- (CA INDEX NAME)



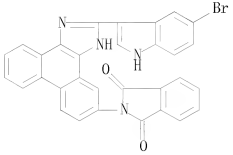
RN 852147-86-5 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(2-methyl-1H-indol-3-yl)-5,10-dinitro- (CA INDEX NAME)



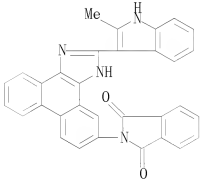
RN 852147-87-6 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(1H-indol-3-yl)-5,10-dinitro- (CA INDEX NAME)



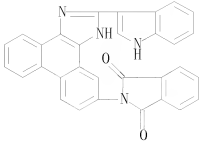
RN 852147-88-7 CAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-[2-(5-bromo-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]- (CA INDEX NAME)



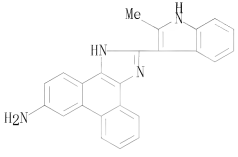
RN 852147-89-8 CAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-[2-(2-methyl-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]- (CA INDEX NAME)



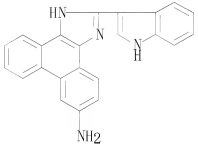
RN 852147-90-1 CAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-[2-(1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]- (CA INDEX NAME)



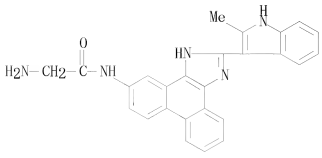
RN 852147-91-2 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-9-amine, 2-(2-methyl-1H-indol-3-yl)- (CA INDEX NAME)



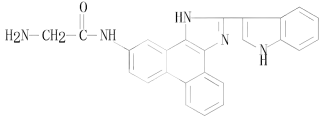
RN 852147-92-3 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-9-amine, 2-(1H-indol-3-yl)- (CA INDEX NAME)



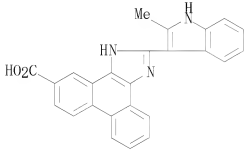
RN 852147-93-4 CAPLUS
CN Acetamide, 2-amino-N-[2-(2-methyl-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]- (CA INDEX NAME)



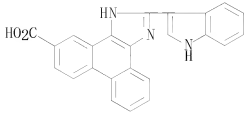
RN 852147-94-5 CAPLUS
CN Acetamide, 2-amino-N-[2-(1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]- (CA INDEX NAME)



RN 852147-95-6 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole-10-carboxylic acid, 2-(2-methyl-1H-indol-3-yl)- (CA INDEX NAME)

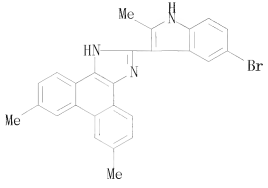


RN 852147-96-7 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole-10-carboxylic acid, 2-(1H-indol-3-yl)- (CA INDEX NAME)



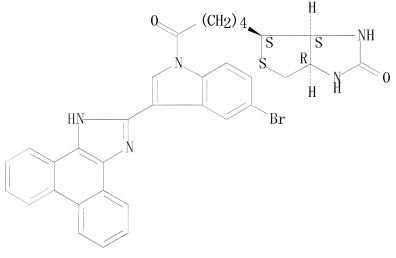
RN 852147-97-8 CAPLUS

CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-bromo-2-methyl-1H-indol-3-yl)-6,9-dimethyl- (CA INDEX NAME)

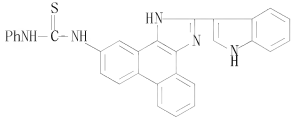


RN 852147-98-9 CAPLUS
CN 1H-Thieno[3,4-d]imidazol-2(3H)-one, 4-[5-[5-bromo-3-(1H-phenanthro[9,10-d]imidazol-2-yl)-1H-indol-1-yl]-5-oxopentyl]tetrahydro-, (3aS,4S,6aR)- (CA INDEX NAME)

Absolute stereochemistry.

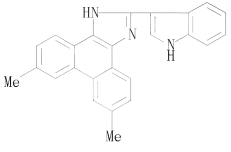


RN 852147-99-0 CAPLUS
CN Thiourea, N-[2-(1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]-N'-phenyl- (CA INDEX NAME)

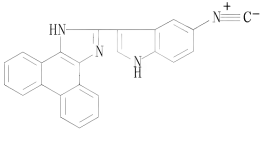


RN 852148-00-6 CAPLUS

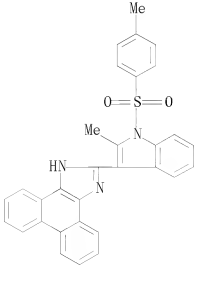
CN 1H-Phenanthro[9,10-d]imidazole, 2-(1H-indol-3-yl)-6,9-dimethyl- (CA INDEX NAME)



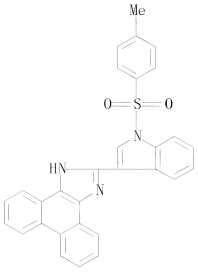
RN 852148-01-7 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(5-isocyano-1H-indol-3-yl)- (CA INDEX NAME)



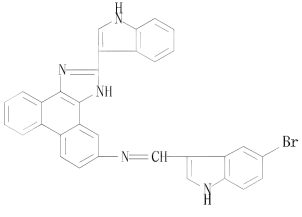
RN 852148-05-1 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-[2-methyl-1-[(4-methylphenyl)sulfonyl]-1H-indol-3-yl]- (CA INDEX NAME)



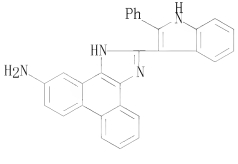
RN 852148-06-2 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-[1-[(4-methylphenyl)sulfonyl]-1H-indol-3-yl]- (CA INDEX NAME)



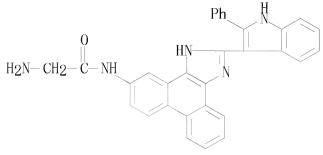
RN 852148-10-8 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-10-amine,
N-[(5-bromo-1H-indol-3-yl)methylene]-2-(1H-indol-3-yl)- (CA INDEX NAME)



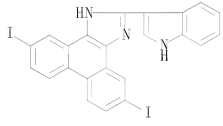
RN 852148-11-9 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazol-10-amine, 2-(2-phenyl-1H-indol-3-yl)- (CA INDEX NAME)



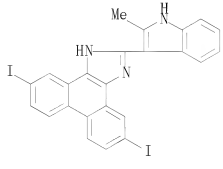
RN 852148-12-0 CAPLUS
CN Acetamide, 2-amino-N-[2-(2-phenyl-1H-indol-3-yl)-1H-phenanthro[9,10-d]imidazol-10-yl]- (CA INDEX NAME)



RN 852148-13-1 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-(1H-indol-3-yl)-5,10-diiodo- (CA INDEX NAME)



RN 852148-14-2 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 5,10-diiodo-2-(2-methyl-1H-indol-3-yl)- (CA INDEX NAME)



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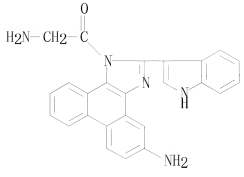

RN 852148-29-9 CAPLUS
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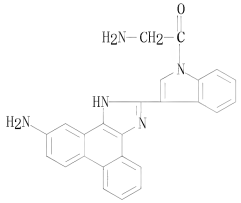

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)
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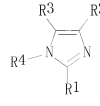
L6 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:162540 CAPLUS
DOCUMENT NUMBER: 140:193035
TITLE: Preparation of 2,4,5-trisubstituted imidazoles and their use as antibacterial and/or antifungal agents
INVENTOR(S): Huesca, Mario; Al-qawasmeh, Raed; Young, Aiping H.; Lee, Yoon
PATENT ASSIGNEE(S): Lorus Therapeutics Inc., Can.
SOURCE: PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004016086	A2	20040226	WO 2003-CA1229	20030819
WO 2004016086	A3	20040429		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2496241	A1	20040226	CA 2003-2496241	20030819
AU 2003257329	A1	20040303	AU 2003-257329	20030819
AU 2003257329	B2	20091119		
EP 1531674	A2	20050525	EP 2003-787546	20030819
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003013763	A	20050719	BR 2003-13763	20030819
CN 1688194	A	20051026	CN 2003-824355	20030819
JP 2006503817	T	20060202	JP 2004-528206	20030819
US 20070105929	A1	20070510	US 2006-525690	20061024

PRIORITY APPLN. INFO.: CA 2002-2398765 A 20020819
WO 2003-CA1229 W 20030819

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 140:193035
GRAPHIC IMAGE:



I

ABSTRACT:
The present invention provides therapeutically effective 2,4,5-trisubstituted

imidazole compds. (shown as I; variables defined below; particularly 2-(indol-3-yl)imidazoles; e.g. 3-(4,5-diphenylimidazol-2-yl)-2-methylindole (II)), methods of preparing the same, and compns. comprising the compds. alone or in combination with other agents. The present invention further provides for the use of the compds. as anti-microbial agents because of their antibacterial and/or antifungal activity. For I: R1 is (un)substituted aryl, (un)substituted heterocycle, or (un)substituted heteroaryl; R2 and R3 = (un)substituted aryl, (un)substituted heterocycle, or (un)substituted heteroaryl or R2 and R3 when taken together along with the C atoms they are attached to, form (un)substituted aryl, and R4 is H, halogen, hydroxy, thiol, (un)substituted lower alkyl, (un)substituted lower alkenyl, (un)substituted lower alkynyl, alkylalkenyl, alkyl alkynyl, alkoxy, alkylthio, acyl, aryloxy, amino, amido, carboxy, (un)substituted aryl, heteroaryl, (un)substituted heterocycle, heteroalkyl, (un)substituted cycloalkyl, alkylcycloalkyl, alkylcycloheteroalkyl, nitro, or cyano. Although the methods of preparation are not claimed, 1 example preparation and characterization data for 25 similarly prepared examples of I are included. For example, II was prepared by cyclization of benzil with 2-methylindole-3-carboxaldehyde in the presence of NH4OAc in AcOH. Minimal inhibitory concns. (MICs) for 4 examples of I against methicillin-resistant staphylococcus aureus (MRSA) are tabulated; the bactericidal/bacteriostatic effects of these compds. were also studied. In vivo inhibition of MRSA in mice was not as good for these 4 examples of I as for vancomycin; no toxicity symptoms were observed Addnl. in vivo MRSA antibacterial activities for .apprx.15 examples of I are tabulated. In vitro MIC values against 8 S. aureus strains are tabulated for .apprx.70 examples of I and against 4 other gram-pos. bacteria for 3 examples of I. In vitro antifungal activities for 17 examples of I against C. albicans are included.

IT 296793-77-6P, 2-(Indol-3-yl)-1H-phenanthro[9,10-d]imidazole
330449-59-7P, 2-(Indol-3-yl)-5-iodo-1H-phenanthro[9,10-d]imidazole
662151-09-9P, 2-(2-Methylindol-3-yl)-1H-phenanthro[9,10-d]imidazole 662151-10-2P, 2-(5-Bromoindol-3-yl)-1H-phenanthro[9,10-d]imidazole
662151-11-3P, 2-(1-Methylindol-3-yl)-1H-phenanthro[9,10-d]imidazole 662151-16-8P, 2-(5-Bromoindol-3-yl)-5,10-diiodo-1H-phenanthro[9,10-d]imidazole
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); COS (Cosmetic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 2,4,5-trisubstituted imidazoles and their use as antibacterial and/or antifungal agents)

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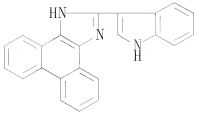

RN 330449-59-7 CAPLUS
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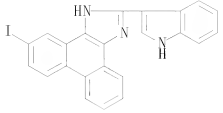

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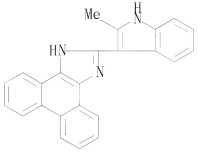

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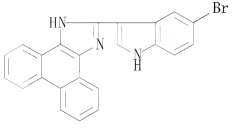

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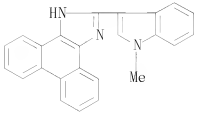

RN 662151-16-8 CAPLUS
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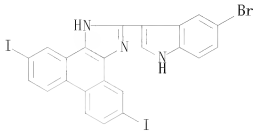
(CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:84341 CAPLUS
DOCUMENT NUMBER: 140:287321
TITLE: Synthesis and antimicrobial activities of some imidazole substituted indoles
AUTHOR(S): Benkli, Kadriye; Demirayak, Seref; Gundogdu-Karaburun, Nalan; Kiraz, Nuri; Iscan, Gokalp; Ucucu, Umit
CORPORATE SOURCE: Faculty of Pharmacy, Department of Pharmaceutical Chemistry, Anadolu University, Eskisehir, 26470, Turk.
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (2004), 43B(1), 174-179
CODEN: IJSBDB; ISSN: 0376-4699
PUBLISHER: National Institute of Science Communication
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:287321
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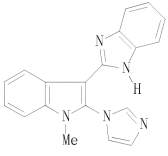
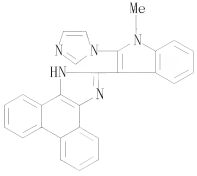


I

ABSTRACT:
Imidazole substituted indole derivs., e.g. I, have been synthesized from 2-imidazol-1-yl-3-formylindoles. The structural elucidation of the synthesized compds. has been performed by IR, 1H NMR, mass spectroscopic data and elemental analyses. Their antimicrobial activities were examined and some compds., e.g. I, were found, as expected, to have notable antifungal activity in comparison with the control agent ketoconazole.

IT 675580-92-4P 675580-93-5P 675580-94-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antimicrobial activities of imidazole substituted indoles)
RN 675580-92-4 CAPLUS
CN 1H-Phenanthro[9,10-d]imidazole, 2-[2-(1H-imidazol-1-yl)-1-methyl-1H-indol-3-yl]- (CA INDEX NAME)



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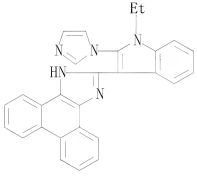

RN 675580-94-6 CAPLUS
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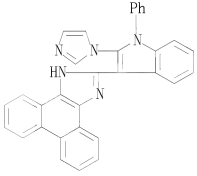

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MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US  20100087654 08 APR 2010
DE 102009045206 08 APR 2010
EP      2172186 07 APR 2010
JP   2010080579 08 APR 2010
WO   2010040315 15 APR 2010
GB      2464101 07 APR 2010
FR      2936707 09 APR 2010
RU      2385893 10 APR 2010
CA      2678295 05 MAR 2010

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L8 ANSWER 1 OF 5 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 149:332334 MARPAT
TITLE: Preparation of imidazoles (apoptazoles) as inducers of apoptosis.
INVENTOR(S): Shin, In-Jae; Lee, Myung-Ryul; Williams, Darren
PATENT ASSIGNEE(S): Industry-Academic Cooperation Foundation, Yonsei University, S. Korea
SOURCE: PCT Int. Appl., 28pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008105565	A1	20080904	WO 2007-KR970	20070226
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
DE 112007003375	T5	20091224	DE 2007-112007003375 20070226	
KR 2010004977	A	20100113	KR 2009-717486	20070226
GB 2462715	A	20100224	GB 2009-14199	20070226
US 20100105726	A1	20100429	US 2009-528680	20090826

PRIORITY APPLN. INFO.: WO 2007-KR970 20070226
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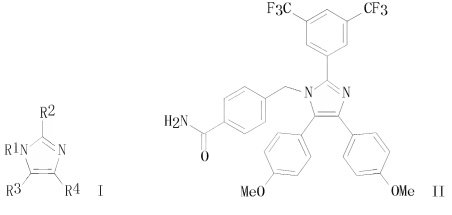


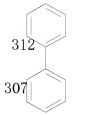
ABSTRACT:
Title compds. [I; R1 = H, alkylaryl, alkyl, cycloalkyl, (CH2CH2O)0-3CH2CH2NH2, etc.; R2-R4 = alkyl, cycloalkyl, alkylaryl, alkenylaryl], were prepared Thus,

NH4OAc, 3,5-bis(trifluoromethyl)benzaldehyde, 4,4'-dimethoxybenzil, and 4-aminomethylbenzamide were stirred together in HOAc for 5 h to give 30% title compound (II) (Apoptazole 1). II at 1 μM showed near-quant. apoptotic effect on SK-OV-3 ovarian cancer cells.

MSTR 1

G2 = 224

G3 +G4 = 307-1 312-5



Patent location: claim 3
Note: substitution is restricted

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 5 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 147:9916 MARPAT
TITLE: Preparation of triarylimidazoles (neurodazines) which induce differentiation of myoblasts or muscle fibers into neurons.
INVENTOR(S): Shin, In-Jae; Lee, Myung-Ryul; Williams, Darren
PATENT ASSIGNEE(S): Industry-Academic Cooperation Foundation, Yonsei University, S. Korea
SOURCE: PCT Int. Appl., 28pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007061153	A1	20070531	WO 2005-KR4627	20051229
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GB 2447373	A	20080910	GB 2008-9228	20051229
JP 2009517379	T	20090430	JP 2008-542216	20051229
US 20070123576	A1	20070531	US 2006-337145	20060120
US 7718685	B2	20100518		
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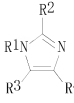


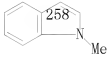
I

ABSTRACT:
Title compds. [I; R1 = H, alkylaryl, alkyl, cycloalkyl, [CH2CH2O]0-3CH2CH2NH2, etc.; R2-R4 = alkyl, cycloalkyl, alkylaryl, alkenylaryl, etc.], were prepared Thus, 5-(3-chlorophenyl)furfural, 4,4'-dimethoxybenzil, and NH4OAc were heated in HOAc at 100° for 6 h to give 2-[2-[5-(3-chlorophenyl)]furyl]-4,5-

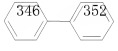
bis(4-methoxyphenyl)imidazole. Treatment of myoblasts with 1 μM neurodazines gave striking neurite outgrowth.

MSTR 1

G4 = 258



G7 +G8 = 346-1 352-5



Patent location: claim 1

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 5 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 143:7711 MARPAT
TITLE: Preparation of 2,4,5-trisubstituted imidazoles and their use as anticancer agents
INVENTOR(S): Huesca, Mario; Al-Qawasmeh, Raed; Young, Aiping H.; Lee, Yoon
PATENT ASSIGNEE(S): Lorus Therapeutics Inc., Can.
SOURCE: PCT Int. Appl., 184 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005047266	A1	20050526	WO 2004-IB52433	20041115
WO 2005047266	A9	20080417		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AP, EA, EP, OA				
AU 2004289539	A1	20050526	AU 2004-289539	20041115
CA 2545942	A1	20050526	CA 2004-2545942	20041115
EP 1692113	A1	20060823	EP 2004-799154	20041115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
JP 2007511504	T	20070510	JP 2006-539065	20041115
US 20070123553	A1	20070531	US 2007-579149	20070119
US 20080262015	A9	20081023		
PRIORITY APPLN. INFO.:			US 2003-520279P	20031114
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			WO 2004-IB52433	20041115

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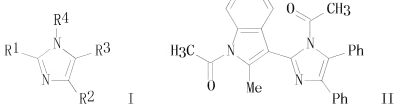
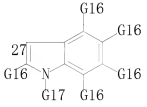


ABSTRACT:

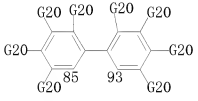
Title compds. I [R1 = aryl, heterocycle, etc.; R2-3 = aryl, heteroaryl, etc.; R4 = H, halo, OH, SH, alkyl, etc.] are prepared For instance, 2-methyl-3-formylindole, benzil and NH4OAc is reacted to give the corresponding 4,5-diphenyl-2-(2-methylindol-3-yl)imidazole. The bis(N-acetyl)derivative (II) showed minimal inhibition of proliferation of human colon carcinoma (HT-29) cells whereas selected examples showed significantly greater inhibition. I are useful alone or in combination with other agents for the treatment of cancer.

MSTR 1

G1 = 27



G2 +G3 = 93-5 85-1



Patent location: claim 1

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 5 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 142:102710 MARPAT
TITLE: Organic luminescent compounds and methods of making and using same
INVENTOR(S): Wang, Suning; Wang, Ruiyao
PATENT ASSIGNEE(S): Can.
SOURCE: U.S. Pat. Appl. Publ., 28 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040265628	A1	20041230	US 2004-825685	20040416
CA 2425819	A1	20041017	CA 2003-2425819	20030417
PRIORITY APPLN. INFO.:			CA 2003-2425819	20030417
			US 2003-463337P	20030417

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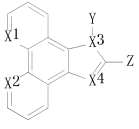


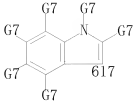
I

ABSTRACT:
Organic compds. are described by the general formula I (X1-4 = independently selected C and N; Y = H, (un)substituted aryl, and (un)substituted C1-24 aliphatic group which may be straight, branched or cyclic; Z = (un)substituted Ph, biphenyl, naphthyl, anthryl, phenanthryl, pyrenyl, pyridyl, bipyridyl, indyl, and quinolinyl; and substituents may be aryl, alkoxy, OH, halo, amino, nitro, nitrile, -CF and C1-24 aliphatic group 1-24 which may be straight, branched or cyclic). Methods of synthesizing the compds., compns. containing them, methods of producing electroluminescence and producing charge separation (e.g., to harvest photons), and uses of the compds. of the invention in luminescent probes, electroluminescent displays, as photoreceptors, and as pH probes, metal ion detectors, and mol. switches.

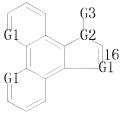
MSTR 1

G4—G10

G1 = CH / N
G2 = N
G4 = 617



G10 = 16



Patent location: claim 1
Note: also includes claims 8 and 9
Note: additional substitution also claimed

L8 ANSWER 5 OF 5 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 140:193035 MARPAT
TITLE: Preparation of 2,4,5-trisubstituted imidazoles and their use as antibacterial and/or antifungal agents
INVENTOR(S): Huesca, Mario; Al-qawasmeh, Raed; Young, Aiping H.; Lee, Yoon
PATENT ASSIGNEE(S): Lorus Therapeutics Inc., Can.
SOURCE: PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004016086	A2	20040226	WO 2003-CA1229	20030819
WO 2004016086	A3	20040429		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2496241	A1	20040226	CA 2003-2496241	20030819
AU 2003257329	A1	20040303	AU 2003-257329	20030819
AU 2003257329	B2	20091119		
EP 1531674	A2	20050525	EP 2003-787546	20030819
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BR 2003013763	A	20050719	BR 2003-13763	20030819
CN 1688194	A	20051026	CN 2003-824355	20030819
JP 2006503817	T	20060202	JP 2004-528206	20030819
US 20070105929	A1	20070510	US 2006-525690	20061024
PRIORITY APPLN. INFO.:			CA 2002-2398765	20020819
			WO 2003-CA1229	20030819

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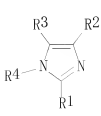


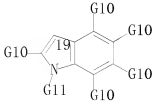
I

ABSTRACT:
The present invention provides therapeutically effective 2,4,5-trisubstituted imidazole compds. (shown as I; variables defined below; particularly

2-(indol-3-yl)imidazoles; e.g. 3-(4,5-diphenylimidazol-2-yl)-2-methylindole (II)), methods of preparing the same, and compns. comprising the compds. alone or in combination with other agents. The present invention further provides for the use of the compds. as anti-microbial agents because of their antibacterial and/or antifungal activity. For I: R1 is (un)substituted aryl, (un)substituted heterocycle, or (un)substituted heteroaryl; R2 and R3 = (un)substituted aryl, (un)substituted heterocycle, or (un)substituted heteroaryl or R2 and R3 when taken together along with the C atoms they are attached to, form (un)substituted aryl, and R4 is H, halogen, hydroxy, thiol, (un)substituted lower alkyl, (un)substituted lower alkenyl, (un)substituted lower alkynyl, alkylalkenyl, alkyl alkynyl, alkoxy, alkylthio, acyl, aryloxy, amino, amido, carboxy, (un)substituted aryl, heteroaryl, (un)substituted heterocycle, heteroalkyl, (un)substituted cycloalkyl, alkylcycloalkyl, alkylcycloheteroalkyl, nitro, or cyano. Although the methods of preparation are not claimed, 1 example preparation and characterization data for 25 similarly prepared examples of I are included. For example, II was prepared by cyclization of benzil with 2-methylindole-3-carboxaldehyde in the presence of NH4OAc in AcOH. Minimal inhibitory concns. (MICs) for 4 examples of I against methicillin-resistant staphylococcus aureus (MRSA) are tabulated; the bactericidal/bacteriostatic effects of these compds. were also studied. In vivo inhibition of MRSA in mice was not as good for these 4 examples of I as for vancomycin; no toxicity symptoms were observed Addnl. in vivo MRSA antibacterial activities for .apprx.15 examples of I are tabulated. In vitro MIC values against 8 S. aureus strains are tabulated for .apprx.70 examples of I and against 4 other gram-pos. bacteria for 3 examples of I. In vitro antifungal activities for 17 examples of I against C. albicans are included.

MSTR 1

G1 = 19



G2 +G3 = 61-5 51-1

Patent location: claim 1
Note: or salts

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L3             91 SEA SSS FUL L1
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L5              1 SEA ABB=ON  PLU=ON  L3 NOT L4
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     FILE REGISTRY
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REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2010

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FILE MARPAT
FILE CONTENT: 1961-PRESENT VOL 152 ISS 22 (20100527/ED)

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US 20100087654 08 APR 2010
DE 102009045206 08 APR 2010
EP 2172186 07 APR 2010
JP 2010080579 08 APR 2010
WO 2010040315 15 APR 2010
GB 2464101 07 APR 2010
FR 2936707 09 APR 2010
RU 2385893 10 APR 2010
CA 2678295 05 MAR 2010

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